Environmental Assessment/ Initial Study

I-580 Eastbound HOV Lane Project
From East of Greenville Road to Hacienda Drive
04-Ala-580, KP R12.6/30.7
(PM R7.8/19.1)
04258-290810

September 2006

GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document:

This Environmental Assessment/Initial Study has been prepared for the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA). It examines the potential environmental impacts of the alternatives being considered for the proposed project located in Alameda County, California, and describes why the project is being proposed; alternatives for the project; the existing environment that could be affected by the project; the potential impacts from the project; and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

Please read this Environmental Assessment / Initial Study. Additional copies of this document, as well as the technical studies, are available for review at:

- Caltrans District 4 Office, 111 Grand Avenue, Oakland, California 94623, or web site at www.dot.ca.gov/dist4/envdocs.htm
- Alameda County Congestion Management Agency (ACCMA) offices at 1333 Broadway, Suite 220, Oakland, California 94612, or web site at www.accma.ca.gov
- Dublin Library, 200 Civic Plaza, Dublin, California 94568
- Pleasanton Public Library, 400 Old Bernal Avenue, Pleasanton, California 94566
- Livermore Public Library, Civic Center Branch, 1188 South Livermore Avenue, Livermore, California 94550

We welcome your comments. If you have any comments regarding the proposed project, please send your written comments to Caltrans by the deadline.

- Submit comments via postal mail to:

  Ed Pang, Senior Environmental Planner
  Caltrans Office of Environmental Analysis
  P.O. Box 23660
  Oakland, CA 94623-0660

- Submit comments via email to Ed_Pang@dot.ca.gov
- Submit comments by the deadline: October 5, 2006.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans and FHWA may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Alameda County Congestion Management Authority, Attn: Jean G. Hart, Deputy Director, Planning, 1333 Broadway, Suite 220, Oakland, CA 94612; 510-836-2560, or use the California Relay Service TTY number, 800-735-2929.

04-ALA-580-KP R12.6/30.7
(PM R7.8/19.1)
EA 04258-290810

Construct eastbound-only high-occupancy vehicle lane on Interstate 580 in the existing median area from east of Greenville Road in the City of Livermore, KP R12.6 (PM R7.8), to Hacienda Drive in the City of Pleasanton, KP 30.7 (PM 19.1)

ENVIRONMENTAL ASSESSMENT / INITIAL STUDY WITH PROPOSED NEGATIVE DECLARATION

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

and

THE STATE OF CALIFORNIA
Department of Transportation

8/25/2006
Date of Approval

Melanie Brent
MELANIE BRENT, Chief
District 4 Office of Environmental Analysis
California Department of Transportation

8/31/2006
Date of Approval

for GENE K. FONG
Division Administrator
Federal Highway Administration

PROPOSED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), in cooperation with the Alameda County Congestion Management Agency (ACCMA), propose to construct an eastbound high-occupancy vehicle (HOV) lane in the median of Interstate Highway 580 (I-580) between kilometer post (KP) R12.6 [post mile (PM) R7.8], just east of the Greenville Road interchange, and KP 30.7 (PM 19.1), at the Hacienda Drive interchange. The project would also construct eastbound auxiliary lanes between El Charro Road and Airway Boulevard and between First Street and Vasco Road. The project is proposed to:

- Reduce eastbound peak-period congestion and delay
- Encourage use of HOVs and transit
- Support regional air quality attainment goals
- Improve safety for motorists and Caltrans maintenance workers

Determination

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt an ND for this project. This does not mean that Caltrans' decision regarding the project is final. This ND is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- There would be no significant impact on topography or erosion, nor would there be any increased potential for geologic or seismic hazards;
- There would be no significant impact on air, water quality, hazardous waste, or rate of use of any natural resource;
- There would be no significant impact on floodplains, wetlands, or riparian vegetation;
- There would be no significant impact on fish and wildlife, endangered species, or habitat;
- There would be no significant impact on agriculture or scenic resources;
- There would be no significant impact on public facilities, neighborhoods, housing, business, economy, or employment of the area;
- There would be no significant impact on land use or growth;
- There would be no significant adverse impacts on traffic;
- There would be no significant impacts on cultural resources, recreation, parkland, or open space; and
- There would be no significant impacts on visual/aesthetic quality or noise levels.

_____ _____

JAMES B. RICHARDS Date
Deputy District Director
District 4 Division of Environmental Planning and Engineering
California Department of Transportation

Summary

S.1 Introduction/Overview

The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA), in coordination with the Alameda County Congestion Management Agency (ACCMA), propose to construct a high-occupancy vehicle (HOV) lane eastbound in the existing median of Interstate Highway 580 (I-580) in Alameda County from east of Greenville Road in the City of Livermore to the Hacienda Drive interchange in the City of Pleasanton, a distance of approximately 18.1 kilometers (km) (11.3 miles [mi]). The project is one of several transportation improvement projects envisioned in the Tri-Valley Implementation Plan for the I-580, Route 84, and Interstate Highway 680 (I-680) corridors.

I-580 is a major interregional route serving the San Francisco Bay Area and the Central Valley. It is a vital link for goods movement through the Port of Oakland, the Bay Area, and the nation. I-580 connects to State Route 205 through Stockton and to Interstate 5 (I-5), which traverses the length of California and north to Oregon and Washington. I-580 is also a primary corridor for weekend and summertime recreational travel to and from the Central Valley and the Sierra Nevada mountains, and it plays a strategic role in the regional transportation system as a designated "lifeline route" for use following a major earthquake.

Within the Bay Area, I-580 carries commute trips by Tri-Valley residents and even those as far away as Tracy and Stockton to jobs in Oakland, Berkeley, San Francisco, South Alameda County, and Santa Clara County. Metropolitan Transportation Commission (MTC) projections show that this type of in-commuting will nearly double over the next 20 years.

Congestion and delay are expected to increase along with the continued growth projected for the region. By the year 2025, average daily traffic would increase by as much as 43 percent. While westbound morning peak-hour traffic would increase by an average of 22 percent, eastbound evening peak-hour traffic would nearly double (increasing by an average of 95 percent).[1]

Project development efforts to address congestion in the I-580 corridor have been ongoing since 1985, when the Caltrans *Route I-580 Route Concept Report* proposed the expansion of I-580 from eight to ten lanes between I-680 and Greenville Road. In 1988, a recommendation to incorporate HOV lanes and ramp metering on I-580 between I-680 and Greenville Road was proposed in Caltrans' *System Management Plan.* In 2001, the project became eligible for funding from the Governor's Transportation Congestion Relief Program (TCRP). This led to development of a project to provide HOV lanes on I-580 both eastbound and westbound from approximately Tassajara Road to approximately Vasco Road—although several alternatives extended the project limits to Greenville Road. The current project was formulated in 2003 in response to severe funding constraints in the wake of the State budget crisis and a temporary freeze on TCRP funds. Because eastbound traffic congestion and delay during the evening peak period are worse than westbound congestion and delay

[1] *Project Study Report/Project Development Support from Tassajara Road/Santa Rita Road to Vasco Road* (Caltrans, 2001).

in the morning peak period (see Section 2.1.6.1 Traffic and Transportation / Pedestrian and Bicycle Facilities – Affected Environment), providing an eastbound HOV lane was a logical first step in a phased approach to congestion relief for the I-580 corridor in the Livermore Valley.

The I-580 Eastbound HOV Lane Project is consistent with local planning goals and policies. The project is included in MTC's *Transportation 2030 Plan for the San Francisco Bay Area* and *Blueprint for the 21st Century, Phased Implementation Plan* (2000). It is also part of MTC's *2002 High Occupancy Vehicle (HOV) Lane Master Plan Update* (2003). The project is listed in the Governor's *Traffic Congestion Relief Program* (2000) and the Tri-Valley Council's *1995 Transportation Plan/Action Plan for Routes of Regional Significance*. It has the strong support of ACCMA, the Alameda County Transportation Improvement Authority (ACTIA), and all Tri-Valley jurisdictions. Development of the project and project funding are described in greater detail in Sections 1.1.1, Project Background, and 1.1.2, Funding, Programming, and Costs.

S.2 Purpose and Need

S.2.1 Purpose

Caltrans and FHWA, in cooperation with ACCMA, propose a project that:

- Reduces eastbound peak-period congestion and delay
- Encourages use of high-occupancy vehicles and transit
- Supports regional air quality attainment goals
- Improves safety for motorists and Caltrans maintenance workers

S.2.2 Need

Recurrent congestion and travel delay in the I-580 corridor are attributable to heavy commuter traffic during weekday morning and evening commute hours, as well as a high concentration of trucks. Congestion occurs both westbound in the morning and eastbound in the evening, but it is worse in the evening peak period, which is more concentrated than the morning peak period. Providing an eastbound HOV lane would greatly reduce recurring traffic congestion and delay for carpool and transit riders, and it would also benefit other motorists by moving carpool and transit vehicles out of the mixed-flow lanes. Auxiliary lanes would further improve highway operations by separating vehicle on and off movements from mainline through traffic.

Ever increasing travel demand calls for better management of existing highway capacity. HOV lanes are designed to promote commute alternatives by providing carpools and transit with a distinct time/speed advantage over single-occupant vehicles. This addresses growth exceeding capacity by consolidating trips into fewer vehicles.

The Tri-Valley area is downwind of several major freeways and industrial areas, while the mountains surrounding the area tend to trap pollutants. Most violations of the ozone (O_3) air quality standards in the Bay Area occur at the Livermore monitoring station. The region is currently classified as a moderate attainment area for O_3; maintaining the region's attainment status is critical to funding future transportation needs. The proposed project would support regional air quality objectives by

reducing the number of automobiles idling in traffic–particularly during the eastbound evening peak period when air pollutants accumulate.

Some existing features of I-580 within the project limits do not meet current roadway standards. Standard inside and outside shoulders would provide adequate pullout areas for disabled vehicles and improve access for emergency services vehicles. A fully paved median would enable mechanized highway cleanup and maintenance operations, which would improve roadway conditions and increase safety for Caltrans maintenance workers. An additional 1.2 meters (m) (4 feet [ft]) along the inside shoulder, where practical, would accommodate California Highway Patrol (CHP) enforcement areas.

S.3 Project Description

S.3.1 The Proposed Project (Build Alternative)

The proposed project would include:

- An HOV lane eastbound in the median from the Hacienda Drive interchange to east of Greenville Road;
- Auxiliary lanes eastbound between El Charro Road and Airway Boulevard and between First Street and Vasco Road;
- Realignment of the Airway Boulevard off-ramp, First Street on-ramp, and Greenville Road on-ramp and off-ramp, all within the existing I-580 right-of-way;
- Widening existing shoulders to current 3-m (10-ft) standard widths, except at four locations (see Section 1.3.2, Build Alternative, for details):
- CHP enforcement areas in the median where space permits;
- Outside widening on the south or eastbound side of I-580 within the right-of-way between the El Charro Road off-ramp and west of Airway Boulevard and between just west of Portola Avenue and Greenville Road;
- Median paving to increase safety for motorists and Caltrans maintenance workers (by enabling mechanized maintenance); and
- Replacement of the existing metal thrie-beam median barrier with a double thrie-beam and concrete barrier, located on the existing freeway centerline.

S.3.2 No-Build Alternative

The No-Build Alternative assumes no major improvements to I-580 through the project limits other than those currently planned and programmed, as well as continued routine maintenance (a detailed description of the No-Build Alternative is presented in Section 1.3.3, No-Build Alternative). The No-Build Alternative would not satisfy the project purpose and need, but it is being studied in accordance with National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements. It offers a basis for comparison with the Build Alternative in the future analysis year of 2030.

S.4 Environmental Impacts and Mitigation Measures

The No-Build Alternative includes all currently planned and programmed projects, but it does not propose new activities other than routine maintenance within the I-580 Eastbound HOV Lane Project limits. The following summary focuses on impacts of the proposed project (Build Alternative). Table S-1 summarizes the environmental impacts of the proposed project and proposes avoidance, minimization, and/or mitigation measures for each impact. Chapter 2 describes the impacts and mitigation measures for each impact category in Sections 2.1, 2.2, and 2.3, Human Environment, Physical Environment, and Biological Environment, respectively. Construction phase impacts are described in Section 2.4 following the project Construction Scenario (Section 2.4.1).

Table S-1: Summary of Proposed Project Impacts and Mitigation Measures

Impact Category	Proposed Project (Build Alternative) Impacts	Proposed Avoidance, Minimization, and/or Mitigation Measures
Human Environment		
Land Use Changes	None; project entirely within existing roadway right-of-way.	None.
Displacements/ Relocations	None; project entirely within existing roadway right-of-way.	None.
Growth Inducement	Project supports planned growth and would not induce unplanned growth.	None.
Farmlands/ Timberlands	No effect.	None.
Community Impacts	Project is consistent with local and regional planning goals and policies. All improvements are in the existing roadway right-of-way, so there would be no new community barriers, no relocations, or displacements. There would be no disproportionate impacts on low-income or ethnic minority communities.	None.
Utilities/Emergency Services	No utility relocation is expected. Utility casings for two sewers and one gas line may have to be extended.	ACCMA will coordinate utility relocations with local providers to avoid unplanned interruptions in service.
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Peak-period eastbound traffic conditions would improve in both HOV and mixed-use lanes. Travel time in mixed-flow lanes between Hopyard Road and Greenville Road during evening eastbound peak hour would be reduced from 34 to 26 minutes. HOV lanes would generally operate at free-flow conditions. The eastbound HOV lane would not adversely affect westbound operations.	None.

Table S-1: Summary of Proposed Project Impacts and Mitigation Measures		
Impact Category	**Proposed Project (Build Alternative) Impacts**	**Proposed Avoidance, Minimization, and/or Mitigation Measures**
Visual/Aesthetics	Median landscaping consisting of oleanders and other mature shoulder landscaping along intermittent project segments would be removed. Removal of vegetation would visually expose views of opposing traffic lanes. Other visual changes due to installation of soundwalls and retaining walls.	Replacement planting in suitable and feasible areas within highway right-of-way. Interchange loops may be for replacement planting if shoulders are not wide enough. Some oleanders and other species of shrubs and trees would be used as replacement planting. Architectural and landscaping treatments would be implemented on soundwalls. Where feasible, vines would be planted and allowed to grow on the walls to reduce glare and the incidence of graffiti. New retaining walls would also be given aesthetic treatment.
Cultural Resources	No historical resources eligible for the National Register of Historic Places (NRHP). Areas of archaeological sensitivity are below the level of planned excavation.	None required.
Physical Environment		
Hydrology and Floodplain	Project in 100-year flood hazard area; no substantial adverse impact anticipated.	Thrie-beam median barrier proposed at locations within 100-year floodplain.
Water Quality and Stormwater Runoff	Increase in impervious surfaces and slight increase of stormwater runoff. Potential for pollutants from surface runoff, particularly during "first flush."	Project drainage facilities to be designed to mitigate small increase in runoff. Best Management Practices (BMPs) including erosion control measures and structural treatments such as detention/infiltration basins.
Geology/Soils/ Seismic/Topography	Geologic hazards include fault rupture, ground shaking, and groundwater seepage.	Project will be designed to current geotechnical and seismic standards.
Hazardous Waste/Materials	Four hazardous waste sites identified in the City of Livermore with potential for adverse effect. Additional site listed as having a gasoline and waste oil underground storage tank (UST). No sites within the existing right-of-way. Presence of lead-based paint on the surface of existing roadway bridges or in adjacent soils. Potential for soil contaminated by aerially deposited lead (ADL).	Testing for lead-based paint will be conducted prior to any work at existing bridge structures or painted pavement. Soil samples will be collected and analyzed to determine whether soils can be reused onsite or removed offsite.
Paleontology	Low likelihood of encountering paleontological resources.	None.
Air Quality	No increase in emissions from vehicle operations. No carbon monoxide (CO) exceedences on roadway segments. Complies with federal transportation conformity criteria (40 *Code of Federal Regulations* [CFR] Part 93).	None.

Table S-1: Summary of Proposed Project Impacts and Mitigation Measures		
Impact Category	**Proposed Project (Build Alternative) Impacts**	**Proposed Avoidance, Minimization, and/or Mitigation Measures**
Noise	Build Alternative peak-hour $L_{eq}(h)$ (equivalent sound level averaged over a 1-hour period of time) would range from 57 to 81 A-weighted decibels (dBA).	Implement noise abatement measures consistent with Caltrans/FHWA procedures.
Biological Environment		
Natural Communities	Approximately 8,050 oleander shrubs would be removed within roadway median.	Replacement planting in suitable and feasible areas within the highway right-of-way.
Wetlands and Other Waters	0.10 hectares (ha) (0.24 acres [ac]) of other waters of the U.S. would be filled.	Mitigation to be determined through consultation with the United States Army Corps of Engineers (USACE) likely would include restoration of waters of the U.S. at a minimum ratio of 1:1. Project would require one or more nationwide Section 404 permits for filling of waters of the U.S.
Plant Species	No impacts to special-status plant species due to lack of suitable habitat.	None.
Special-status, Threatened and Endangered Species	California red-legged frog (CRLF): Impacts to 0.0004 ha (0.001 ac) of potential dispersal corridor.	Preconstruction avoidance/ minimization measures would be implemented (see Construction Phase Impacts, below).
Construction Phase Impacts		
Hydrology and Floodplain	Project limited to median and shoulder widening and would avoid bridge widening and construction activity within creeks and channels. The box culvert at Cottonwood Creek would be extended. No other construction affecting waterways.	A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and will identify construction-period BMPs to reduce impacts to surface waterways.
Water Quality and Stormwater Runoff	Construction activities could adversely affect the surrounding watershed and streams without stormwater and non-stormwater pollution controls. Construction over or in waterways (for the Cottonwood Creek culvert extension only) could cause streambank erosion and water turbidity, as well as increased siltation and sedimentation from temporary changes in water flow.	SWPPP would identify construction period BMPs to avoid impacts to surface waters.
Hazardous Waste/Materials	Potential for release of hazardous materials used in construction operations and encountering ADL in soils.	An approved worker health and safety plan (WH&SP) to address handling of any hazardous materials during construction. WH&SP would also address storage and disposal of any hazardous waste/materials used in construction operations.

Table S-1: Summary of Proposed Project Impacts and Mitigation Measures		
Impact Category	**Proposed Project (Build Alternative) Impacts**	**Proposed Avoidance, Minimization, and/or Mitigation Measures**
Air Quality	Construction generates air pollutant emissions from activities such as clearing, grubbing, grading, and excavation.	Appropriate construction control measures, such as site-sweeping, site-watering, and travel speed controls on unpaved roads.
Noise	Temporary increase in ambient noise levels.	Equipment noise control, administrative measures such as noise monitoring and community updates, and adherence to local noise ordinances.
Wetlands and Other Waters	Temporary effects to 0.06 ha (0.16 ac) of other waters of the U.S.	BMPs included in contract specifications to be implemented by the contractor.
Special Status, Threatened and Endangered Species	California red-legged frog (CRLF): In-stream construction activities could impact CRLF at Cottonwood Creek. Temporary impacts to 0.0021 ha (0.005 ac) of potential dispersal corridor. Water quality impacts due to construction activities near Arroyo Las Positas and other waterways could affect CRLF.	Preconstruction surveys of all project-affected CRLF habitat. CRLF habitat would be designated as ESAs. A qualified biological monitor would be present during in-stream construction activities. A Workers Environmental Awareness Training Program shall be conducted for construction personnel. BMPs for water quality would be implemented.
	Western pond turtle: Not anticipated to occur at Cottonwood Creek.	Preconstruction surveys of all project-affected aquatic habitats. If pond turtle is found, onsite monitoring and possible relocation shall be implemented with United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) approval. Water quality BMPs would be implemented.
	Special-status birds: Tree removal or construction activities could adversely affect nesting birds.	Construction activities will be timed to avoid nesting season, or preconstruction surveys of nesting areas would be conducted. ESAs shall be established around active nesting sites.
	Western burrowing owl: Project area appears unsuitable for western burrowing owl.	Preconstruction surveys would be conducted. A no-disturbance buffer would be established around any active burrow. If adverse affects to occupied burrows are unavoidable, owls shall be relocated using techniques approved by CDFG.

Table S-1: Summary of Proposed Project Impacts and Mitigation Measures		
Impact Category	**Proposed Project (Build Alternative) Impacts**	**Proposed Avoidance, Minimization, and/or Mitigation Measures**
	Swallows: Temporary impacts to nesting habitat, including increased vibratory, noise, and light disturbance.	If feasible, construction activities would be conducted during non-nesting season. If unfeasible, swallows would be prevented from nesting at bridge and culvert structures. Prior to nesting season, all nests would be removed and exclusion techniques implemented with appropriate resource agency approval.
	Special-status bats: Construction activities may result in vibratory, noise, and light impacts. Disturbance may lead to roost abandonment.	Preconstruction surveys would be conducted to determine whether bats are using bridge and culvert structures. If an active roost site is identified, avoidance/minimization measures will be developed in cooperation with appropriate resource agency.
Invasive Plant Species	Weeds can be inadvertently introduced during construction.	Avoidance and minimization measures would be incorporated into the construction specifications.
Cumulative Impacts		
Biological Resources	0.10 ha (0.24 ac) of impacts to other waters of the U.S. and 0.093 ha (0.23 ac) of wetland impacts with I-580/Isabel Avenue Interchange Project would produce combined impacts of 0.193 ha (0.47 ac) to wetlands/other waters in project vicinity.	Mitigation measures would include habitat restoration by the I-580/ Isabel Avenue Interchange Project and, in consultation with USACE, restoration of other waters by the present project.
Visual Impacts	Loss of oleanders under the present project and of riparian and screening vegetation under the I-580/Isabel Avenue Interchange Project.	Replacement planting in suitable areas and where space allows.
Water Quality	Increase in impervious surface from this and other projects in the area, including the I-580/ Isabel Avenue Interchange Project, Route 84 Expressway Widening Project, Auxiliary Lanes between Tassajara Road/Santa Rita Road and Airway Boulevard, and IKEA west of Hacienda Drive, for a combined total of approximately 43 ha (107 ac). The combined total would be less than three percent of the existing impervious surface in surrounding Livermore, Dublin, and Pleasanton.	Reconstruct existing drainage facilities to accept or convey the increased flow to appropriate drainages along the highway. Minimize increase to sediment loads by erosion control measures, planting of vegetation, and installation of treatment BMPs.
Construction Phase Traffic	Long-term cumulative effects would be beneficial, relieving present congestion. If two or more projects in the same corridor are under construction at the same time, excessive traffic delays and detours could occur during construction.	Planned construction traffic management provisions in the Transportation Management Plan (TMP) for concurrent projects would minimize mainline delays and avoid a substantial cumulative effect.

S.5 Costs and Funding

The estimated cost for the Build Alternative is approximately $75 million. Funding sources include TCRP; the State Transportation Improvement Plan (STIP); Regional Measure 2 (RM2), approved by Bay Area voters in March 2004; and the County of Alameda's Measure B, passed in November 2000.

Funding Source	Amount
Traffic Congestion Relief Program (TCRP)	$25.0 million
State Transportation Improvement Program (STIP)	$17.0 million
Regional Measure 2 (RM2)	$17.4 million
TEA-LU	$15.6 million
Total Funding	**$75.0 million**

S.6 Construction Schedule

The schedule for the proposed project anticipates project approval by 2007. To expedite the project, ACCMA is proceeding with design at risk, concurrent with and contingent upon successful completion of the project approval and environmental process. Concurrent design will enable construction to begin in September 2007 and for the project to be completed by September 2009.

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APPENDICES

LIST OF TECHNICAL STUDIES

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